

Abstract of the Disclosure

A tension force adjustable prestressed girder is disclosed which can compensate for sagging or cracks of a girder generated due to overload or long-term creep or increase a load-resisting force of a bridge or a building. The tension force adjustable prestressed girder for adjusting a load-resisting force which consists of an upper flange supporting an upper deck of a bridge installed thereon, a body portion, and a lower flange, which includes tension steel wires provided in a lengthwise direction of the girder and tensioned to compensate for the load-resisting force, and at least one or more non-tension steel wires provided in the lengthwise direction of the girder, so that the load-resisting force of the bridge or building can be increased by tensioning the non-tension steel wires. Thus, cracks and sagging of a girder generated due to long-term deterioration, creep or overload can be corrected by additionally tensioning steel wires installed internally or externally at a girder of the bridge or building. Thus, repair and reinforcement of the bridge or building is easy so that the load-resisting force of the bridge or building can be easily increased. Also, by adjusting the tension force step by step, the girder can be economically manufactured or the height of the girder can be decreased.

TENSION FORCE ADJUSTABLE PRESTRESSED GIRDERS